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ABSTRACT

Tree climbing offers a safe, inexpensive adventure sport that can be performed almost anywhere. Using standard procedures practiced in tree surgery or rock climbing, almost any tree can be climbed. Tree climbing provides challenge and adventure as well as a vigorous upper-body workout. Tree Climbers International classifies trees using a system similar to that used in rock climbing. Trees are rated Class 1 through 6 depending on difficulty and height. Some equipment needed is a rope, a throw ball, a harness, and a daisy rope. Tree climbing technique differs from that of rock climbing and caving, in that it uses a direct hoisting system, which makes little or no use of the feet. The rope is the main tool used in hoisting and descending. Psychologically, tree climbing is a middle-level climbing experience, while rock climbing is a high-level climbing experience. Tree climbing offers relative safety, convenience, a live medium, various levels of difficulty, opportunities for night climbing and overnight camping, and economy of time and money. In a group climb, each tree is awarded a name by the first climber to reach the top (or by popular consent of the climbing party) and a register of names at the top of the tree is started for subsequent climbers. Prior to climbing, a tree should be inspected for such dangers as dead branches and unstable root foundations. Handicapped individuals, children, and families can engage in climbing. Tree Climbers International provides a tree climbing school, seminars, and a publication. (KS)

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TECHNICAL TREE CLIMBING

by

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ABSTRACT:

Tree climbing is no longer limited to children and professional tree surgeons. A sport has evolved from the trade that opens a whole new field of unexplored regions--the forest canopy.

Introduction

Climbing trees for fun is nothing new to most of us. Tree climbing adventures are a source of fond childhood memories. But the impressive trees we climbed as children seem small when revisited in our adult years. They can no longer provide us with the challenges and sensation of height that we sought as youngsters. To recapture that soaring experience, adults have to look for larger trees. However, one does not have to be a professional lumberjack or tree surgeon to reach the top of a giant tree.

Using standard procedures practiced in tree surgery or rock and mountain climbing, almost any tree can be climbed. Leg spikes, like those used by pole climbers, are not used because of the injury they inflict on the tree being climbed. The equipment needed to climb most trees can be purchased for under $300. This professional quality equipment will provide many years of service if properly cared for.

Why Climb Trees

Adventure plays an important part in a person's life. Without it, life can become dull. Adventure not only breaks the monotony of everyday routine, but it also serves to stimulate and challenge the person

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involved. Trees can provide that source of adventure just like they once did when you were a kid.

Have you ever wanted to get away from it all but you didn't have the time or money for a long trip? Have you ever wanted to disappear and watch the world go by? The solution could be as close as your own yard. Those big trees that you see every day could be a source of adventure beyond your imagination. But adventure is only one aspect of tree climbing.

Climbing trees is a vigorous exercise for the upper part of the body. The hands, forearms, chest, back, and neck muscles receive a potent workout. But the area receiving the greatest use is in the stomach. It's like doing sit ups many times over but without the boredom of repetition. It's a great way to tone up a flabby stomach while enjoying an exhilarating adventure. Rope climbing can also be an interesting addition to a fitness program.

Many sports, like running and cycling, develop the lower part of the body. Weight lifting, exercise machines, or calisthenics must then be employed to fill in the gap and round out the program. Rope climbing can serve admirably to complete an athlete's fitness routine. There remains one more aspect that benefits the rope climber- mental improvement.

Tree climbing is similar to the martial arts. It involves intense concentration. Natural fears, like the fear of heights and unfamiliar places, must be confronted and overcome. Balance and coordination are improved while exploring the tree tops. You also gain relief from stress through exercise and a unique environment. Self confidence is boosted as one acquires experience in the high tree canopy.

How Safe Is It?

Tree climbing is safer than riding a bicycle down the street. Climbing is performed while suspended from a rope. As long as the rope is looped over a sturdy branch and the knots are tied correctly, it would be almost impossible to fall. But if a climber decided to untie his knots and jump, loop his rope over a weak or dead branch, or cut his rope, the possibility for danger would be apparent.

Who Can Climb Trees?

Almost anyone can climb trees. Exceptional strength is not needed. Lighter people will have an easier time of it than those that are overweight. The overweight will have to work harder but it can be an entertaining way to loose extra poundage. Even the

handicapped can climb. Two strong arms are all that's needed. Those that have had previous back or other major injuries should consult with their physician first before climbing.

Difficulty Rating of Climbs

The TCI classification system is modeled after the Sierra Club system of classes used in rock climbing. There is always a gray area when describing a climb by a number system. A Class 5 climb can be easy to an exceptionally talented climber.

Likewise, a Class 3 climb can quickly turn to a Class 5 difficulty on a wet, windy day. A classification system can only be used as a point of reference.

CLASS 1- Easy. Ladder type climb. Rope not often necessary or desired. Hand and foot holds easily within reach. Tree heights are low, 10-25 feet.

CLASS 2- Moderately Easy. Ladder type climb. Hand and foot holds are easily within reach. Because of height, a safety rope is recommended. Tree heights are moderate, 25-50 feet.

CLASS 3- Difficult. Roped climbing. A rope must be used to hoist the climber up to the first foot and hand holds. Distances between rope settings are short but often out of arms reach. Tree heights are moderate, 25-75 feet.

CLASS 4- Moderately Difficult. Roped climbing. A throw ball must be used for the first rope setting. Distances between rope settings is greatly increased. Tree heights are moderate to high, 50-125 feet.

CLASS 5- Very Difficult. Roped climbing. Throw ball must be used for multiple rope settings. This class can present many special climbing problems: leaning trees, a sparse high branch system, multiple climbing rope systems, and tree-to-tree traverses. Tree heights are high to very high, 75-200.

CLASS 6- Extremely Difficult. Special rope climbing methods. First branch out or throw ball range (75 feet or more). Lines are placed with bow and arrow, crossbow, or line guns like those used by sailors. Single rope climbing is performed with the aid of mechanical ascenders like those used in mountaineering and caving (Jumars, Gibbs). Tree heights are very high, 150-370 feet.

Classifications can not always be relevant to a particular climb. Slippery conditions caused by rain or ice, high winds, extreme heat or cold, or the climber's current physical and mental condition can affect a difficulty rating.

Tree Climbing--In a Nutshell

Climbing trees does not require a great deal of equipment. However, several pieces of equipment will be used regularly. Other small additions to your gear will appear as you attain experience, experiment with new techniques, or become inventive as you develop your own unique climbing style. Some climbers will carry a large assortment of tools while others will elect to carry the barest minimum. Much will depend on what a climber feels most comfortable with and their personal climbing style.

A rope must first be looped over a branch before climbing can start. If the first branch starts fairly high, a throw ball with attached line must be used. The ball, a pear shaped padded weight or a sand bag, is used and a light weight line is attached. After the throw ball is draped over a branch, the climbing rope is tied on and pulled over.

Now you buckle on the harness, a tree surgeons saddle or padded legstrap saddle, and step up to the ropes that are now dangling in the air. A figure eight loop is then tied and snapped into the saddle with a locking carabiner. The remaining two feet of rope is tied to the other rope using a magnus or taut-line hitch. The magnus hitch bears a close resemblance to a prusik knot and works in the same way. But before you leave the ground, two other pieces of equipment must be carried along.

The daisy rope is a type of safety line that doubles as a climbing rope for traveling short distances, like between branches. It's made out of the same rope used for climbing and measures twenty feet long. Two carabiners are attached at both ends with a third carabiner used for fine adjustments. To keep the daisy rope from getting tangled while not in use, it is stuffed into a canvas riggers bag that hangs from the belt behind the climber.

To climb, you pull down on one end of the rope and slide the knot up, usually in one to two foot increments. Let go of the knot and it automatically locks-holding you in place. This process is repeated until the branch the rope is looped over, the anchor point, is reached.

Now several options are available to climb to the next branch. First, you can switch over to the daisy

rope and free up the long climbing rope to loop over the next branch. If the next branch is just out of reach, you might use the daisy rope to pull yourself up while still remaining attached to the climbing rope. For longer distances between branches, the throw ball can be used again. The technique will depend on the situation. The main point is to always be attached, by rope, to the tree while climbing.

Descending is easy. You grasp the magnus hitch knot and gently pull down. The speed of descent increases the harder you pull down. When you let go of the knot, you automatically stop--a total self-belay system.

Of course much more is involved in climbing trees. There's branch walking, night climbs, over night bivouacs, tree-to-tree traverses, and a host of other fascinating aspects too numerous to mention. The description you just read was merely an overview.

Tree Climbing vs. Rock Climbing

Technique Differences

Equipment designed for rock climbing and caving does not fill the needs of the tree climbing enthusiast for one important reason--the feet. The major difference between caving and rock climbing as opposed to tree climbing lies in the use of the feet. A rock climber uses the feet directly for upward movement, like foot jams, friction smearing, and edging. While climbing suspended by ropes, as in aid climbing, the rock climber and caver will make use of their feet to help propel themselves upward by using some type of foot stirrup. The stirrups might be used with mechanical ascenders, or appear in other forms, like etriers, prusik systems, Jumar systems, or rope walking systems. The climber will step into these loops to progress upwards.

A tree climber uses an entirely different method for upward movement, a direct hoisting system, that makes little or no use of the feet, at least as long as the climber is in a suspended position. For this reason, equipment designed for sports other than tree climbing is not appropriate for comfortable tree travel.

Equipment Differences

The rope is the main tool for gaining height in a tree. The climber's rope is used directly for hoisting a climber up. Tree climbing utilizes a moving rope system. What do we mean by a moving rope system? As a

climber moves upward, the rope is moving over a surface, usually a branch. The rope is fully loaded with a climbers weight. The rope also moves over the supporting surface, or anchor point, while the climber descends.

With rock climbing, the rope is used differently. The rock climber uses the rope primarily as a safety back up measure in the event of a fall. Though a rock climber's rope moves as a belayer pays out rope, the fact remains that the rope is free of the climbers weight, as long as a fall doesn't occur. Some rock climbing methods do use the rope more directly, like in aid climbing with mechanical ascenders, but the rope does not become a fully direct hoisting system nor does it move, as it does in tree climbing.

In tree climbing, descents generate high heat. A kermantle rope's sheath wouldn't last one climb without significant damage to the outer sheath. Because the rope is used differently, special ropes designed specifically for tree climbing are used.

Polyester blend ropes were designed specifically for tree climbing and they cannot be surpassed in performance. These synthetic ropes are often combined with other synthetic materials like polypropylene, nylon, and polyolefin. Polyester materials are used for the outside sheath. They can withstand high heat levels. The inner core contains the stronger materials, like nylon and polypropylene. The ropes are exceptionally strong, limber for accepting a knot with tight wraps, and have an acceptable level of stretch.

Besides the climbing rope, the harness, or saddle, will be the other major difference between rock and tree climbers. A good tree surgeon's buttstrap saddle or padded legstrap saddle is mandatory, because a climber will spend a large amount of time suspended in midair. Tree climbing would be more of a chore than a joy, not to mention more hazardous to one's family health, if a climber was not comfortable while suspended from the tree tops. Rock climbing harnesses are not designed for prolonged periods of cheerful suspension.

Psychological Differences

You'll find tree climbing a middle-level climbing experience. What do we mean by a medium level climbing experience? The brain seems to accept different climbing situations with varying degrees of fear and apprehension. The degree of danger does not always correlate to the climb.

Let's take a low-level climbing experience--stair climbing. Climbing a long flight of stairs is exhausting and boring. The brain can be lulled into a listless

state, regardless of the inherent danger. A fall on a flight of stairs usually ends in a serious injury, even death.

Rock climbing provides a high-level climbing experience. Nothing boring about this type of climb. To a novice, it could be an unparalleled adventure rife with fear, uncertainty, and intensity. The climber might only stand a few inches above the ground groping for an unseen finger hold while bouldering or climbing a short practice pitch while being protected by a top rope belay. Even though the danger level is low, the brain sends messages requiring massive doses of adrenaline. A ropes course, with its top belay points, falls into this category also.

Tree climbing furnishes a middle-level climbing experience. The climber is ascending while suspended from a rope. A climber doesn't feel like they are going to slip and fall off. The climb usually follows a pattern of four or five pulls upward followed by a brief rest period. Because the climbing method is a self-belayed system, the climber can release their hold on the knot at any time and not worry about falling. This is not to say that tree climbing lacks a certain amount of fear of challenge. Climbing suspended fifty feet up with nothing but air below you can fill the heart with apprehension. After you reach the first branch, you'll need to figure out how to place your rope over the next branch. This is where climbing strategy and challenge begins.

Different Climbing Mediums

The world is full of things to climb. Whatever reaches beyond a persons head, you can bet it has been climbed or seriously considered by some adventurous soul. Rock and mountain climbing currently draws the majority of climbers. Bouldering provides climbers with low height challenges, many of which are extremely difficult. Caving now attracts many new climbers. Ice climbing, a specialized medium, beckons those seeking something different.

If you live in the city, there's plenty of climbing mediums. You might find climbers practicing on stone walls or the sides of buildings. If that's not enough, city dwellers might take on a building or even a sky scraper--buildering. Other man-made objects that attract city climbers include radio towers, flag poles, water tanks, and wooden poles.

Let's not forget those fabulous artificial climbing surfaces many climbers are practicing and competing on these days.

Of all the climbing mediums, only one remains that can be viewed as the starting point of most climbers--trees. Trees are the roots of most climbers. Possibly it has something to do with man's past heritage when our species dwelled and foraged in the tree tops. Certainly the ready availability of trees adds to the popularity of this climbing medium. Ask almost any kid about tree climbing and you'll get a knowledgeable response. Ask any top rock climber about their childhood climbs and trees will no doubt play into the conversation. Trees are the roots of most climbers.

Twenty-Three Reasons To Consider Technical Tree Climbing Safety

The most important category of reasons deals with safety. One of the most important concerns of an outdoor program pertains to the subject of liability. If an activity carries a high accident potential, it could put the program in a position where insurance could be unattainable. It's already difficult finding coverage. This is not to mention the heavy expense of insurance coverage.

Currently, insurance companies know little about technical tree climbing. To them, it's viewed as an equal with other climbing sports.

However, comparatively speaking, tree climbing does offer a number of safety advantages over other climbing mediums. The techniques and safety measures are derived from the age old trade of tree surgery. A tree surgeon must daily rely on safe climbing procedures to remain in business. A professional tree climber also knows it takes only one mistake to be cast out of business, if not life itself.

1. Tree climbing makes use of a self-belay system. A belay is the procedure where another person pays out or takes in rope as a climber ascends or descends. The belayer, who is firmly anchored (tied in), prevents the climbing partner from falling by holding on tight in the event of an accident. With a self-belay system, the climber provides themselves with a back-up in case of an accident. All they have to do is let go of the knot and it automatically locks down, stopping the climber. A second person is not needed. A self-belay system not only saves manpower but increases safety. Belayers have been known to succumb to inattentiveness and even sleep during long climbs.

2. A climber ascends from a suspended position. The likelihood of falling while suspended from a rope is slim. We are not talking about cutting your rope or breaking the branch you're climbing from.

3. Constant supervision, like using a top belay, is not needed with a self-belay system. The climber can stop and rest at their own speed, whenever they like. They need only release the knot from their grip. Both hands are then free to do what ever they like. Not only does this increase the safety margin, but it adds much to a novice climber's feeling of self-control. A sure boost for self-esteem.

4. Trees provide abundant anchor points. It's easy to find an anchor point, usually a crotch, to loop the climbing rope over. If an anchor point is not available, one can be easily made with a short piece of rope and a carabiner or rescue pulley. They're called "false crotches."

5. Trees furnish high visibility to anchor points, hand, and foot holds. You won't need to search for hand or foot holds. The branches may be positioned many feet from you, but you can plainly see them. Judging their strength is usually a simple process of observation.

6. Sharp edges are usually nonexistent in trees. Tree shapes are based on the cylinder form--most everything is round excepting the leaves. You won't need to worry about your rope being cut from edge abrasion.

7. Climbers can make a quick, safe retreat if necessary--like if a sudden storm approaches. Descents are made from the same self-belay system. If the climber releases their knot, they automatically stop. Rappelling techniques are not used. Each climber supervises their own escape using their own personal rope.

8. A rescue is easy to perform if needed. Multiple anchoring choices added to false crotch placements make lowering a victim a simple matter. Unless you're scaling redwoods, the trees you'll be climbing won't grow much over a hundred feet. An experienced climber can scale this distance in a matter of minutes. You can add to your safety margin by leaving a high climbing rope unused, just in case a climber is suddenly needed aloft.

Most of the rescues involve a stalled climber. The climber usually either freezes from excessive fear, or

more commonly, the knot jams making descents difficult for the nervous novice. The rescue involves a simple climb to the stalled climber. The climber needs only to grab the stalled climbers knot and their own and pull both knots down simultaneously--a tandem rescue.

Convenience

9. Trees are readily available--they grow almost everywhere. You don't have to travel far to find a tree worthy of a climb. No doubt this is a primary reason why most of us have climbed as children.

10. Short approaches free up more time for climbing. No need to lug heavy packs and rations to reach a worthy climbing tree. This is not the case, however, if you're on a climbing expedition deep inside a remote virgin forest stand.

11. Every tree climbs different. Sometimes you'll need to slug it out with a big tree to get to the top. Other trees you might dash up without missing a breath. If you feel like a tough climb, you can tackle a hefty big tree with branches growing in difficult locations for rope placement. Possibly a more romantic setting appeals to you. You could climb a less imposing tree near water--like over running stream or by a lake. Trees don't need to be giants to provide adventure.

12. It doesn't take long to set up a rope and start climbing. If it's a tree you regularly climb, thin inexpensive lines can be left in place for later speedy rope placements (fixed lines).

Trees as a Climbing Medium

13. Trees are a moving medium. Breezy days convert a solid climbing object to a vibrantly swaying, rocking, limber being. Wind storms change the situation further to a thrashing, whipping ride.

14. Trees are a vocal medium. Wind passes through our throats to produce sounds. Wind passage through trees creates sound too. A gentle breeze forms a soothing sigh or hiss. A steady wind makes a tree stand proud as it energetically flaps its leaves or whistles with its branches. Wind storms stimulate howling and screaming as a tree fights for its life, battling against potentially damaging winds. Branches break and trees topple due to wind.

15. Trees offer a climate compatibility. In the summer, they shade you with their cool leaves. Winters they drop their cloak and let you climb in a warming sun--if you're climbing a deciduous tree.

The Climb

16. Multiple climbing routes are available on the same tree. You won't have to wait for someone to clear off your route before you start your climb. Just choose a different route or climb another side of the tree.

17. A group can jointly share in the climbing experience by climbing together. This is accomplished by making use of the multiple routes and sides of a tree. The group can meet near the top for a canopy party, complete with snacks and refreshments. Much will depend on the tree's size and branch structure.

18. Tree registers furnish a visible goal. The registers are usually hung from the highest climbing points, called summit points or summit branches. Often climbers will leave small pieces of candy or write unusual messages for following climbers to enjoy. Climbers also leave their name and address. This provides a chance for climbers to find climbing partners and furnishes a source of conversation from shared interests.

The most common storage register used is a rodent proof steel box hung from light steel cables. Special water proof paper is used to prevent condensation from ruining the paper.

Like rock and mountain climbs, each tree is awarded a name. The name is christened by the first climber to gain its summit point or by popular consent of the climbing party.

19. Higher levels of challenge exist for experienced climbers. A climber can further advance their skills by learning to venture out away from the trunk--branch walking. Branch walking is performed with the protection of a high climbing rope. If that's not enough, one can try tree-to-tree traverses. Traverses are tricky maneuvers, often requiring team efforts.

20. You can safely climb during night time hours. The trick is to leave inexpensive fixed lines hanging so ropes can be safely pulled up during the dark hours. Night climbs should be restricted to intermediate climbers familiar with basic climbing techniques. What a menagerie of sounds, smells, and sensations await the canopy climber during the warm summer months! Fireflies

will transform your tree to a shimmering spectacle of lights.

21. Overnight camping, called a bivouac, is easily accomplished in a tree. Special hammocks, called "Treeboats", are used for safe, comfortable sleep. This hammock is equipped with four suspension points, one at each corner, to create a secure, rounded hull-like support. It's almost impossible to roll out. Additional accessories for this bivouac system include an insulating pad to protect against radiant heat loss. A mosquito net is also available. You can even get a light weight fiberglass-ribbed tent to go over the hammock!

During an overnight bivouac, the sounds, stars, and smells can create a near mystical experience. It's an overnight few ever forget.

Economy

22. Economic use of time accompanies a tree climbing program. Ready availability of trees linked with a short approach and quick set up prior to climbing helps save time. More time is free for the experience--the climb itself.

23. Climbing gear is almost a one-time purchase. Your gear will last many long years if you purchase top quality equipment designed for industry use and you properly care for it.

Ropes take the most wear and abuse. The most common factors that retire tree ropes are severe heat loads produced from descents taken too rapidly (rope melt downs) or cuts inflicted by hand or chain saws.

Sudden shock loads, like a leader fall, won't present a problem to rope life. A tree climber ascends while in suspension. The shearing force of an edge abrasion will also be absent.

Selecting A Suitable Climbing Tree

Not every tree is suitable for climbing. You've got to take a careful look at a tree before buckling on your saddle. The most important consideration is, of course, your own personal safety. Could you get hurt, or worse, killed in the tree you intend to climb? How about you climbing buddies? You certainly wouldn't want some of your climbing party injured.

"Wild" trees require climbers to cross over into the field of tree surgery to make a judgement of a tree's safety. A "wild" tree is a tree that has not been previously climbed. They are usually littered with

dead branches that might break off, possibly to fall on climbers and people on the ground. Small shoots, called suckers, usually grow from trunks and large branches. Though suckers present no danger, they make passage through the tree irritating and frustrating. Both dead branches and suckers must be pruned by the lead climber, the first climber up, before the rest of the party ascends. Not only does pruning promote safety, it adds immensely to the health of a tree. After the first initial cleaning, keeping a tree "tame" is a simple process of spot pruning, requiring time and effort.

A lead climber must make other inspections before giving the tree a passing mark. An inspection of the ground around the trunk for soil cracks will indicate an unstable root foundation--especially on leaning trees. Extensive hollow sections on the trunk or high up in branches must be searched for. Honey bee hives and hornet nests would certainly disqualify a tree for climbing. Active animal nests, especially during the breeding season, should be avoided in the climbing route. All these points of consideration plus many more must be contemplated by the lead climber. You don't need to hold a forestry degree or chock up years of tree surgery experience. Good eye sight and common sense does the trick.

After you've "tamed" your tree, write it down in your book of designated climbing trees. Gradually add to your list and before long you'll end up with a variety of climbs, each different and challenging. Don't forget to hang a tree register on each designated climbing tree.

Climbing Dangers

The tree itself can pose numerous problems to the climber. A careful look at several aspects is essential before climbing.

Dead branches prevail as the most dangerous and most common hazard to tree climbers. The majority of deadwood occurs on the lower portions of a tree. This is natural. A tree will reject a branch if it is not receiving regular sunlight. If a leaf doesn't receive sunlight, it can't produce sugars, or food (photosynthesis). We all know what happens if you don't produce on the job--you get laid off.

Numerous dead branches located in the crown, or top of tree, usually means death in the near future. The crown of the tree is equivalent to the brain of a tree. The majority of a tree's food is produced there.

If one side of a tree is dead, it might correlate to severe root loss or decay. It could also mean a

lightning strike. Look for strips of peeled off bark to verify a lightning strike.

Extended droughts can cause a tree to start shutting down its living branches, by killing them, trying to prevent its water from leaving the tree. Dead branches can appear anywhere. If the drought lasts years, the tree could eventually die.

"But you're talking about tree surgery and arborist stuff here", some people complain. You'll need be aware of numerous facts and facets of tree life. A climber must know and understand the medium being climbed, whether it be rock, cave, buildings, or trees.

Common Problems With Novice Climbers

The most common problem encountered by novice climbers deals with the lack of upper body strength. Manually pulling your body weight up the ropes requires considerable strength. The inability to pull one's self up is greatly pronounced with overweight people. But several techniques exist to get around this problem. A climbing partner can assist by pulling down on the rope as the climber ascends. This method, called a "manual assist", does not make use of the assistant's full body weight. It merely helps the climber in sliding the know up.

Another assist method makes use of a mechanical ascender strapped tightly to one foot (Gibbs). It's called a foot cam. A foot cam makes use of a persons body weight, as opposed to upper torso strength, to gain height. The system remains a self-belay system because the same knots are used.

At the Tree Climbers International (TCI) climbing school, climbers start with the most difficult method of climbing--pulling one's self up unassisted. This gives the instructors a point of reference to a climbers weaknesses. If a climber can't climb alone, a manual assist is applied. If problems persist with upper movement, a foot cam is introduced--the surest way to get a person up regardless of body weight or strength.

The progression of starting with the hardest climbing method and then introducing easier methods when needed creates a positive impression on the novice. Instead of things getting harder, things get easier. It also gives the student a goal to shoot for. All serious students look forward to climbing on their own power. It's sort of a status symbol.

Fear of heights ranks second with problems associated with beginners. This fear is natural with all humans--even professional climbers. An instructor can only relieve a certain degree of this fear; more with some students or less with others. A total mastery of

the fear of heights should not be an instructors or programs goal. A fearless climber is a reckless climber--a danger to themselves and others.

The best method of overcoming the fear of heights comes from knowledge and experience. At the TCI school, "first time climbers" climb up a short stretch of rope; usually twenty feet. This gives them a good height sensation and makes rescues (stalled climbers) simple and speedy. They get to practice ascents and descents while working all the knots.

The second climb is usually higher; about fifty feet up. At this height, climbers get a strong dose of the fear of heights. The students are then instructed to sit on a comfortable branch for a prolonged period of observation. They're really in a period of acclimation. To the novice students, it's a time to watch other climbers while they play in the canopy, usually intermediate and advanced students, or reflect on how they currently feel fifty feet up.

The third climb usually takes the novice to the top. They've already been half way up on the previous climb, so a point of reference exists along with a goal to reach higher. The fear of heights is not erased, but the control of fear is strengthened.

Handicapped Climbers

The handicapped are not excluded from the thrills of tree climbing. All one needs are a set of strong arms. Wheel chair bound people usually have all the upper body strength, plus extra to spare, for pulling themselves up. With paraplegics, the biggest problem is the altered point of balance produced from legs that are undersized due to lack of use. You'll need to rig a chest support to counter the balance--a simple matter. The same will apply to lower amputees, both single or double.

Always consult with a handicapped climber's physician if there is any doubt to whether climbing could cause injury. This is especially important if you are working with a student that has been paralyzed from an injury.

The blind and deaf can climb. The ropes will need to be set up for the blind by a seeing person. The deaf can be easily signaled by tugging their ropes from the ground.

It's best to locate a designated climbing tree on level ground for wheel chair and other handicapped climbers. Find a tree that's near a street or better yet, a parking area. Half-inch plywood strips can easily be laid down to get wheel chairs quickly to the

tree. Make sure the ground is clear of debris that might trip a student.

The psychological effect on handicapped climbers is amazing. A handicapped climber rightfully feels like they are participating in something adventurous and somewhat risky. They are actually doing something most able-bodies (people) are afraid to do--climbing. The fear of heights of course enters the picture, but challenge strongly overrides it. They travel to a place few ever experience, the canopy. To the handicapped, the rite of signing the tree register holds a special importance. It tells the world in their own handwriting that they have reached a high point through their own efforts.

The psychological effect on the instructor cannot be denied either. Handicapped students exude intensity. The desire to succeed and achieve out distances most able-bodies. When a student reaches that point of victory, the tree register, it is mutually shared by the instructor.

Children Climbers

Children represent the most active climbing group. Things have not changed from the days we adults look back with fondness to tree climbing memories. We're of course not talking about technical rope climbing, kids usually climb with no equipment. Children usually remain active climbers until they are about thirteen, when other attractions start to look more interesting.

Small padded rescue saddles are used for kids. This size snugly fits a four year old. The padded leg straps make it impossible to fall out of, even when they hang upside down. The ropes are the same size used by adults, which are usually easier for them to grip with their smaller hand sizes.

Kids climb with more ease than most adults. The main reason is because of their light body weight. They have less weight to haul up. Children posses plenty of energy to spend. Any parent will attest to that. The sense of adventure is super strong in a child. They're eager to try almost anything without a second thought. And let's not forget that feeling of invincibility that children foster. To them, nothing can hurt them. Indeed, they're fearless creatures. You can bet they're ready to climb!

For the last two years, TCI participated at the Boy Scout Show held in Atlanta. This event is the largest indoor Scout gathering in the world, where over 80,000 attend. Ten climbing stations were constructed by hanging carabiners from webbing slings attached to the

steel beams thirty feet up. At each show, over 500 Scouts climbed up to ring the cow bell.

Few climbers failed to reach the bell. It was usually the overweight kids that had the most problems. The ages ran from three to fourteen. Ten was the average age. The best climbers, who learned the fastest and needed little assistance, were girls from the age of six to eight.

The biggest problem with kids, besides over eagerness and hogging the ropes, was in the descent. Kids tend to pull down too hard on the knot, which effects a rapid descent. To counter the problem, the instructor gripped the rope with gloved hands to act as a brake. Of course the instructor had to know when they were ready to come down. That's why we had the kids ring a bell and notify the instructor when they were ready to descend.

Family Climbing

A number of families now climb together. Some of the parents started first at the TCI school and later brought their children. It's an adventure that offers families a chance to challenge and explore, often in the privacy of their own yard.

What Is Tree Climbers International (TCI)?

Tree Climbers International is a nonprofit organization of recreational and professional climbers. The primary goal of TCI is to establish tree climbing as a recognized sport/art form and bring it to the public's attention. This of course means establishing set standards of climbing, especially for those that seek tree climbing as a avenue of adventure, as opposed to a profession. This insures safety to the climber while not damaging the tree being climbed.

TCI is involved in a number of activities. A school currently operates in Atlanta and frequent trips are made to perform climbing seminars. Slide shows featuring climbing techniques and expeditions to the worlds largest trees are available to groups. Charity tree work, called "tree restorations", are performed on champion trees-the largest trees of their kind either on state or national levels.

An international quarterly publication, TREE CLIMBER, is available to members. The publication features information on climbing technique and equipment, profiles of notable climbers, fantastic climbs (expeditions), and true tree tales. Many of the articles and photos are submitted by the membership.

Sometimes TCI assembles a group of veteran climbers for expedition climbs to the world's largest trees, like the California redwoods or eastern poplars and oaks. The giant trees usually grow in virgin stands of timber known to very few.

Consultation is offered for those seeking to purchase equipment.

Tree Climbers Atlanta (TCA), the local climbing chapter, serves as a model for future chapters. The chapter, also called a grove, meets on a weekly basis. The grove acts independently from TCI, holding its own meetings and scheduling outings and other events. A monthly newsletter is mailed to its members.

Adding Tree Climbing To An Outdoor Program

Proper training is the most important step in starting a tree climbing program. Several options are open to you. If you have a group of instructors that plan to teach tree climbing, a qualified instructor, recommended by TCI, can go to your location. If only one instructor is responsible for instruction, they could travel to the Atlanta school for training.

You might consider establishing a climbing grove in your area. A set of standards must be followed if you wish to be chartered though TCI. All members of the grove must become members of the parent organization, TCI. The price of membership is inexpensive, with special rates to students and senior citizens.

Conclusion

An unexplored region still exists--the canopies of big trees. You might pass under a large tree every day, but few people, if any, have adventured up to its summit branch. Technical tree climbing is not easy or suited for everybody. But it's good to know a place exists, indeed possibly in your own yard, where you can discover adventure and escape a hurried world below.